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THE REGIONAL PROJECT IN SECONDARY EDUCATION

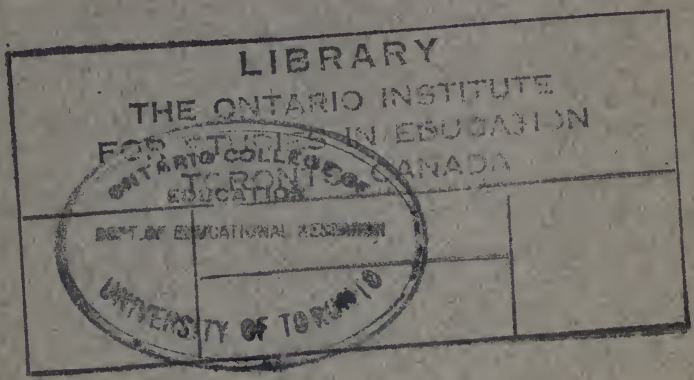
Evaluation of a Program of Coöperative Curriculum Development

BY

T. BENTLEY EDWARDS

UNIVERSITY OF CALIFORNIA PUBLICATIONS IN EDUCATION

Volume 12, No. 1, pp. 1–62



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FOREWORD

THE DECISION of the people of the United States that all youth shall have opportunity for a high school education has posed many problems, none more critical than those pertaining to curriculum and instruction. Progress has been made in identifying the aims and purposes of public high schools; less progress, in determining the means of achieving these goals. Much relevant research has been done, not alone by professional educators, but also by those in related disciplines such as psychology and educational sociology.

Yet, research findings and expert opinions, incomplete and imperfect as they are, are not affecting high school practices to the extent that they should. In some high schools, teachers are still trying to do for all American youth what was done fifty years ago to equip them for college and university. In other high schools, changes in curriculum and instruction have been made, but programs are not well coördinated, graduates of average ability are not adequately prepared either for effective living at once or for further study in higher institutions, slow students drop out from sheer neglect, and few brilliant students are challenged in accordance with their potentialities.

Obviously, modifications in curriculum and in instruction are called for, and improvement is certainly possible. The method of improvement by administrative dictate and fiat has been wholly unsuccessful. The most promising procedure seems to be one in which teachers coöperate with their administrative superiors and with outside experts to develop a more fruitful curriculum.

In such coöperative enterprises teachers enjoy the benefits of widely differing viewpoints, have a part in arriving at decisions as to content and method, and assume responsibility for carrying these decisions into effective action. Many such coöperative projects have been attempted; but in few of them has there been careful evaluation of the results.

In the present monograph the author describes fully and assesses a program of coöperative curriculum development in a number of California high schools. While in the initial plans no provisions were made to collect evidence for a final evaluation, certain items in the operational plan have been used as evaluative criteria, in order to assay the changes which occurred in participating schools. Because of its completeness, this description should be useful to those who may be planning similar coöperative programs and assure from the outset the

inclusion of arrangements for assembling the data essential to the accurate evaluation of each joint project.

WILLIAM A. BROWNELL
Dean of the School of Education

University of California,
Berkeley

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THE REGIONAL PROJECT IN SECONDARY EDUCATION

Evaluation of a Program of Coöperative Curriculum Development

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T. BENTLEY EDWARDS

I. INTRODUCTION

Purpose of the Study

This study is an attempt, ex post facto, to evaluate the Regional Project in Secondary Education.

The Regional Project in Secondary Education (RPSE) was a coöperative venture in curriculum development carried on in eighteen high schools in northern California. For two years, this project was supported by a research grant from the Rosenberg Foundation, and this support permitted the employment of a full-time director. The Director of the RPSE during its second year of operation is the person making the present evaluative study.

Ideally, proposals for suitable evaluation of a venture of this kind should accompany the initial planning. Even then, reliable and convincing evidence would probably be difficult to obtain. When, as in the present study, data-gathering devices must be tacked on to a completed edifice, the difficulty of becoming either reliable or convincing is much greater.

However, an acknowledgment of the difficulties is not an indication of surrender. Coöperative curriculum projects are expensive in time and money, and the need to make value judgments concerning the process is urgent. In fact, they must be made, with or without evidence. Sooner or later, collection of the evidence must begin.

In the present study a number of evaluative devices and techniques have been employed. Some of them appear to be moderately successful. Perhaps the work reported here will help toward an improvement both in the devices themselves and in their application to an evaluation of similar projects.

Summary of Content

This study is reported in eight sections. In section 2, a number of programs similar in nature and philosophy are mentioned, and the need of careful evaluation of these studies is explained.

The question immediately arises whether any change at all in the program of the secondary schools is necessary. To answer this question, the need for change has been explored, and this exploration includes one or two references to the current flood of somewhat hysterical writing about the alleged crisis in the schools.

The need for change being assumed, a second need, that for united effort, is discussed next by an enumeration of the various obstacles to change in the schools. Along with the need for unity of effort to surmount the obstacles goes still another need, namely, for diversity to vary the program and to adapt it to each given community. To show how the strength which lies in unity and the vigor that comes from diversity both can be obtained, a theory of curriculum development is then presented.

In order to measure the effectiveness of the RPSE it is necessary to establish criteria. These criteria are ready to hand in the carefully stated purposes of the project. The third section summarizes these purposes and from them draws criteria for evaluation.

To provide the necessary background for full understanding, the fourth section describes the method of the RPSE, its history, its finances, and its organization.

Section 5 contains the first of the data, the stories of the RPSE in the eighteen participating schools. Written by the former Director (author of the present study), these accounts give the picture in the experimental schools from his point of view.

Section 6 begins with further information concerning these reports and then goes on with the evidence of opinion about the success or failure of the RPSE. Attention first is given to letters of appraisal written by county superintendents, by members of the Advisory Board of the RPSE, by principals in participating schools, and by others prominent in the movement. Next, the returns to a short questionnaire submitted to 147 teachers in 9 of the experimental schools are summarized. Then come data obtained by means of a questionnaire to lay members of one of the communities supporting a participating school. Finally, replies to a fourth questionnaire submitted to a number of principals in nonparticipating schools are considered.

Section 7 presents a further treatment of part of the data.
The eighth and final section contains summaries and conclusions.

II. CURRICULUM DEVELOPMENT

Similar Studies

Coöperative development of the curriculum in high schools is neither new nor rare in this country. As long ago as 1931, curriculum development was begun in Virginia. Michigan began its program in 1936. There is much to be learned from the report of the first years of the study in Michigan, for, to some extent, the pattern set there has been adapted in other states (25).

One of the best-known plans is the Illinois Curriculum Program, which began in 1947 in the secondary schools and which now is also in operation in the elementary schools. This program has a full-time director responsible to the state superintendent of public instruction and a widely representative advisory board which includes lay people. The Illinois Curriculum Program, which had started in 1948 with projects in 19 schools, reported that 86 projects were in progress by September, 1950 (27). Admission to the program requires a request from a school's principal and teachers. In addition, the local school board must provide in its budget for travel expenses of consultants and of teachers who attend the workshop-type conferences which form an important aspect of the program. A number of bulletins have been published by the leaders of this project. One of the most interesting tells the story in each of 19 different schools (26). In other publications, the project leaders pioneered in the development of procedures and materials which make it possible for local school groups to discover the facts about their own situation (2, 12, 14, 15, 16).

An excellent report on a local program of coöperative research and curriculum improvement has been published about a school in Battle Creek, Michigan (10). Just one course was introduced, in a single high school, but the report offers an excellent account of modern methods of curriculum improvement. It describes the way in which consultants from the Horace Mann–Lincoln Institute worked with local consultants and with a group of teachers; it tells how the problem was defined locally; and it reveals how an attack on the original problem of curriculum led to school-wide consideration of such burning issues as marking, promotion, and the power of the school to hold its students until graduation.

A group from the University of Wisconsin has investigated the purposes, practices, and problems of multiple-period class organization in 44 secondary schools in that state for the year 1950–51 (17). Although activities in these schools were not related through a state-wide project, some coöperation is evident.

State-wide programs of curriculum development are under way in a number of states, but few published reports are available (18, 29). Critical evaluation of the general methods used in these programs would seem to be long overdue.

Need for Curriculum Improvement

Documentation of the need for improvement in the secondary schools is not a difficult task. Even critics of current practices in high schools all affirm that change has long been needed (3, 19). It is true that some of these critics call for a return to what they describe as practices formerly prevalent in the secondary schools; but the thinking behind the grass-roots, coöperative approach of such projects as the RPSE sets up no blueprint; the methods of open inquiry fostered by this manner of thinking about curriculum development actually could lead a given community to adopt a more traditional program. It seems likely, however, that when those responsible for planning the school program realize the vast changes that have taken place—in technology, in high school enrollment, in social mores, and in human knowledge—they will show more concern for new content and method in the program of the schools than for a return to the content and method of a former day. In most of the high schools of California, familiar content is being taught by familiar methods to most of the students most of the time (5). Rather than running ahead of variations in the American scene, the high schools may be lagging behind.

Many students are dissatisfied with the high schools they attend. According to a recent survey, at least a third of those who begin high school in California fail to graduate (20, p. 27). In the nation as a whole, the fraction is nearly one-half. If completion of high school is a necessary prerequisite for enlightened citizenship there must be something wrong that makes youth leave school, and those in charge of the high school program must find more successful methods of retaining them in school.

In California, the state legislature has sought to make sure that those remaining to graduate from high school know the facts of American politics. It enacted into law a demand that all high school students be

given instruction on the United States Constitution, and in United States history. Instruction is also required by state law in:

1. Effects of alcohol and narcotics on the human system
2. Manners and morals
3. Fire prevention
4. Physical education
5. Public safety and accident prevention
6. Driver education and driver training
7. Conservation education (7)

This is an imposing list of requirements well outside the range of subject matter usually associated with the high school, most of which must continue to be taught. Much planning is needed before teachers, aware of both the law and the ways of children, can fit these requirements into a meaningful pattern. One of the RPSE schools has concentrated on this difficulty (30) and has included a number of these requirements in a single integrated course. This course took two years to develop, and its adoption is therefore a far cry from the practice tried elsewhere of indiscriminately dumping all these requirements into a single course and calling it "State Requirements."

The citizenship of a number of our youth is bad enough for them to be classed as juvenile delinquents. Whether or not juvenile delinquency is increasing is a difficult question to answer. In 1945, 114,000 people under 21 years of age were arrested. By 1951, the number had jumped to 120,000. In 1945, 21 per cent of the people arrested were under 21. By 1951, this per cent was down to 14.4 (4). The increase in the number of arrests may indicate more crime, or it may indicate greater police efficiency. Whether juvenile delinquency is increasing or not, its prevalence is still most alarming.

There are those who would put most of the blame for juvenile delinquency at the door of the schools (4). Some say it is because the schools are too traditional (28), others because they are "too progressive" (3). Those who know most about delinquent boys and girls, however, prefer to point to many causes (11). These experts do not expect the schools to shoulder all the burden of blame, but they do believe that modification of the program of the secondary schools would help.

Conflict between the proponents of "progressive education" and those favoring a more familiar program is typical of a number of current issues in education. Some of these issues cannot be resolved on an objective basis, because we do not have enough evidence. Possibly agreement over other issues will never be reached. To try for unanimity

where value judgments must be made is to invite sterility and impose conformity. Somehow, those directing the affairs of a secondary school must learn to live with conflict. This lesson is difficult, and much help is needed in order to achieve what the biologists refer to as "homeostasis."

One current issue that involves a number of value judgments is the question of college preparation. In this country and in this state we are fairly well committed to the concept of a single comprehensive high school. The idea of a single high school for all youth is influenced by the requirements of the University of California, for where there is but one secondary school in a community, a law still demands that a pupil trying to enter the University must be provided with an opportunity of meeting its entrance requirements in the local high school (8, p. 454: sect. 10505). There are, however, few educators at the present time who are willing to urge that all youth take a strictly college-preparatory program. A school that wishes to do well by the children and obey the law must, for this additional reason, learn how to vary its program.

Differences between the needs of youth expecting to go to college and the needs of those who expect to end their formal education sometime within the high school years are typical of the vast range of differences found among high school youth. In California over 90 per cent of the high school age group attend high school (20). Many of these students have been promoted yearly without much regard to the level of their educational development. As a result, the range of academic accomplishment and ability in a given grade has increased steadily from year to year. In several of the RPSE schools the range of individual differences has been recorded (21). For example, in one ninth-grade English class, the range of reading ability ran from grade 2.5 to grade 11.6. Although it is possible that all would benefit from a certain amount of common content, it seems illogical to assume that all should cover identical quantities of identical material. The high schools are just not meeting differences as well as they might. For years the difficulties of the mentally retarded have been noted with concern (8, p. 302: sect. 7102, and p. 303: sect. 7103). Recently, more and more educators seem unwilling to leave the brighter students to their own devices (22).

Several reasons why curriculum development is imperative have been listed:

1. Social and technological change
2. High rate of drop-outs
3. State and University requirements
4. Juvenile delinquency
5. Conflicting educational theories
6. Individual differences among students

Not only does this list document the need for constant attention to the curriculum; it also demonstrates that the schools must have assistance from all available sources if they are to cope successfully with the curriculum problems that arise.

Barriers to Change

The need for change in the program of the high school being granted, it might be expected that this need would appear most compelling to those immediately concerned—namely, the principal, the faculty, and the students of an individual school, and, somewhat less, the local community. Yet programs of curriculum development are very difficult to initiate, and many teachers continue to struggle desperately trying to serve individual students of extreme diversity with uniform assignments from a single text. When better methods are available, why are they not used?

Noda (24; and 1, p. 14) cites many of the barriers to change, but for the purposes of the present study, a fairly complete list under seven headings is here provided.

1. *Contemporary American Society*

a) Decision-making by means of the group process is usually slow.

b) Democratic freedom subsumes a degree of confusion regarding the purposes of education.

c) Teachers and other educators may waver in their allegiance to the democratic method, and the phrase itself has different meanings for different people. In general, teachers enjoy freedom of action but are occasionally unwilling to spend the time needed to discuss the consequences of proposed action. On other occasions they reject the responsibility for making decisions and demand the security provided by an authority.

d) In recent years there has been a rapid increase in the population of school-age children—an increase for which society rather than the teachers must accept responsibility. This rapid influx of children has disturbed the stable platform from which new vistas might be explored.

2. *Educational Organization*

a) Education in this country is a big organization. Like all big organizations, it has considerable inertia.

b) Many of the schools in this country are far from other schools.

c) Liaison between the various educational agencies, even when it seems easily attainable, is not as good as it might be.

d) In most school systems, courses have multiplied so rapidly as to leave no stable basis for progress.

3. *The Community*

a) Academic subjects enjoy much prestige.

b) School financing is such that payment of school taxes is a heavy burden on many of those who pay them. Unless the system of financing the schools is changed, it is unlikely that school incomes will show an appreciable rise. If new proposals cost money they will be frowned upon.

c) Certain interests in the community are opposed to too much public education.

d) Some high schools enroll more than 2,500 students.

e) Athletic programs which stress interschool competition are popular in the community.

f) Groups which favor some of the revised practices of the schools have no readily available political machinery for making their wishes known.

4. *Colleges and Universities*

a) Requirements for entrance to universities, though recently modified, have exerted an undue influence on the curriculum for all the children, and in general militate against marked change.

b) Most teachers are trained for the secondary school by spending much of their time studying their major subject.

c) There has been, until recently, little coöperation between experts on school buildings and experts on school curriculum.

5. *Students*

a) Students tend to restrain efforts to change the high school. They are anxious to preserve the glamourized activities they have learned to associate with high school.

b) In their concern that doors of other institutions be held open for them, students and their parents are apt to insist on a rigid interpretation of entrance requirements.

6. *Teachers*

a) In most schools a considerable fraction of the faculty may be expected to leave each year.

b) When things seem to be running smoothly there is a natural reluctance to suggest change.

c) Textbooks set the pace in most classrooms; yet to keep books in a large number of classrooms, authors of textbooks hesitate to introduce too much in the way of novelty. It is true that the textbook writers choose the experiences, but the teachers choose the textbook, and if the charmed circle is to continue intact, neither part must get far from the round.

d) Teachers are honestly doubtful about the alleged values of methods they have not tried.

e) Teachers are unfamiliar with many of the instructional materials that are available.

f) Few teachers have learned the techniques available for meeting individual differences in a single class.

g) Research findings are usually hidden in journals and monographs which teachers seldom have the time or the inclination to read.

h) In most schools there is no local competence in methods of curriculum development.

i) Teaching is a solitary task.

7. *Principals*

a) Many of the obstacles that have been listed under the heading of "teachers" might be just as applicable to "principals."

b) A number of principals have lost their positions as a result of experimenting with the curriculum.

c) Most principals are busy with bond issues and building plans. This condition will continue.

d) Principals occasionally are not adequately prepared to lead a faculty to improve the curriculum.

e) Principals are required to spend much of their time and energy with the interscholastic athletic program.

f) Principals of high schools in small towns and in the country are changed more frequently than those of large urban schools. Developments begun by one principal are often discontinued by his successor.

A few of the state-wide programs of curriculum development have been mentioned, the need for change has been argued, and obstacles or barriers to the needed change have been listed. Before the specific purpose of the Regional Project in Secondary Education is discussed, a

theory of curriculum development will be presented, so that the purpose of the RPSE may be studied in the light of the theory.

Theory of Curriculum Development

1. As the major integrating agency of American society, the school must accept a wide responsibility with respect to purposes.

2. The high school is for all American youth; hence provision must be made to accept and serve children of widely different mental abilities, attitudes, socio-economic backgrounds, previous education, race, creed, physical characteristics, and so on.

3. If education in a democracy is to be successful as a socializing agent, democratic methods must be used for curriculum development.

a) The skills and intelligence of educators of every kind, of pupils, and of representative lay citizens must be used efficiently, each contributing according to his particular competence.

b) The building principal is the key person in any program of curriculum development.

c) Teaching in a democracy is a highly personal affair between teacher and pupil. The teacher will teach only what he knows and believes. Hence the curriculum must be planned in the light of the training and beliefs of the teachers in the school.

d) The schools should consider both the needs of students and the demands of society by leading each student to maximum achievement in his developmental tasks. Both personal and social needs must be considered.

e) In the light of known facts about learner and society, the philosophy of the school and the organization of learning experiences should be planned locally, by means of group action.

4. The curriculum must be planned in the light of our understanding of the psychology of learning.

5. The curriculum of a school will be strongly influenced by the means adopted to evaluate learning.

6. Those activities which used to be considered extracurricular are now generally considered to be as important as other activities organized by the school.

7. The curriculum of the kindergarten, elementary school, high school, and junior college should be developed in the light of a single, consistent, over-all educational philosophy. Experiences should be arranged in a developmental program which is appropriate to various levels of maturation, but the parts of this program should be articulated by reference to a single set of educational purposes.

III. PURPOSES OF THE REGIONAL PROJECT IN SECONDARY EDUCATION AND EVALUATIVE CRITERIA

In order to make a study of the Regional Project in Secondary Education as an example of a program of curriculum development, to look at its strength and its weaknesses, criteria of evaluation must be found. Fortunately, these criteria are available in the carefully worded plan adopted to guide and organize the RPSE. In order to provide standards by which to measure the effectiveness of the project, this operational plan will be summarized, and from the summary, criteria for evaluation will be drawn.

Early in its career, on January 17, 1951, the Advisory Board of the RPSE gave unanimous approval to a statement of an "Operational Plan" that covered twelve pages. In this statement, the three major purposes of the RPSE were clearly established: (*a*) to encourage and assist the development of secondary school programs which better meet the individual needs of pupils; (*b*) to promote preservice and inservice teacher education which is directed toward instruction and curriculum consistent with such pupil needs; and (*c*) to foster teamwork among the many agencies concerned with secondary education.

The first of these purposes is specific. It refers directly to modifications to be introduced into the actual program of the secondary schools.

The second is more general. It refers to modifications to be brought about in the behavior of those who teach in the secondary schools. Though not explicit, the method of the RPSE is here implied, for only those curriculum changes which the teacher understands and believes in will be implemented.

The third is still more general. It refers to coöperation among agencies other than the high school itself that are concerned with secondary education. Here are not only purpose and method, but resources as well—all the resources that are available to principal, teachers, and students as they strive to improve the program in a given school.

A summary of the operational plan will therefore be most appropriate if it calls attention first to the specific purposes of the RPSE, then to its method of operation, and finally to the resources that were used.

Specific Purposes

According to its operational plan, the Regional Project in Secondary Education was to assist in the development of secondary school pro-

grams that better met the individual needs of pupils. For simplicity, these needs will be separated into two categories: first, the ways in which adolescents need to be treated in school; and second, the desirable results that may be expected from this treatment.

NEEDS AS REGARDS TREATMENT

1. Instruction appropriate to the student's readiness and learning rate
2. Handling appropriate to his developmental characteristics as an adolescent
3. A curriculum appropriate to the character of his community
4. Resources for personal advice and guidance
5. Provision for teaching-pupil planning
6. Provision for his participation in the total life of the school

NEEDS AS REGARDS OUTCOMES

1. A feeling of security and significance as regards the student's peer group
2. Adequate vocational orientation
3. Increased communicative skill
4. More ability in and inclination toward critical thinking
5. Consumer skill and knowledge
6. Knowledge of and skill in democratic processes

Method

The operational plan specified that the administrator of any secondary school, with the cognizance of the county superintendent, might ask that his school be designated a "Participating School." Procedures for schools so designated were clearly outlined.

What has been referred to over and over again as the "grass-roots" approach of the RPSE is apparent from the outline of procedure included in the plan. Each participating school was to work away at a problem of its own choosing, making use of whatever resources were available, including those organized through the Advisory Board of the RPSE. These problems were to focus on the planning and implementation of programs particularly designed to better meet the individual needs of students. These programs might involve a single subject or the whole curriculum, a single grade or all grades. The approach might be through methods, materials, guidance, subject offerings, or organization.

The operational plan did not emphasize this "grass-roots" approach in describing the procedure to be followed within a given school. Presumably, with the goal of inservice education in mind, consultants would recommend that teachers and students share in the planning to the fullest extent. In the detailed purposes listed with respect to meeting pupil needs, provision for teacher-pupil planning was included. However, there was nothing in the operational plan to prevent an authoritarian administrator from bringing his school into the project. On the contrary, the RPSE was designed to operate through individual principals with the cognizance of county superintendents.

Resources

Nine agencies concerned with secondary education coöperated in the Regional Project in Secondary Education. These nine agencies included the official organizations of supervisors, administrators, teachers, parents, superintendents, and coördinators, together with the State Department of Education and the state colleges at Chico, Arcata (Humboldt), and Sacramento.

The resources of all of these agencies were to be available to the participating schools. Observation of the programs in these schools was to be permitted, and descriptions of these programs were to be published and distributed to all secondary schools in the region.

In the operational plan, there were specific details concerning the manner in which each of the coöperating agencies was to take part. In general, each of these agencies was to continue to play the role in education that it had assumed over the years, but with this important change: the Advisory Board, composed of representatives of these agencies, was to act as a liaison body.

Directions were most specific for the county superintendents and staffs. Included with the list of seven items was a brief reference to evaluation. This statement was typical of the extent to which evaluation was provided for in the plan. Elsewhere, dealing specifically with evaluation, the operational plan stated, "Data will be gathered through appropriate means regarding such items as the nature of Participating School programs, student status and change in Participating Schools, community participation in and reaction to Participating School programs, relevant characteristics of comparable non-participating schools and their students, and program changes in non-participating schools."

Examination of this statement shows that although it is long, it fails to suggest the use of any device or technique. Although evaluation of

the RPSE was provided for in the operational plan, the proposed evaluation was not made an essential part of the structure.

From the foregoing summary, criteria for evaluation will now be listed.

Criteria of Evaluation

These criteria will be presented in the form of direct questions, grouped in the categories of organization, communication, steps in procedure, and educational outcomes.

ORGANIZATION

1. Was RPSE able to attract a sufficient number of high schools in northern California as participating schools?
2. Did these schools together constitute a representative sample of high schools in northern California?
3. Did these schools come in at the request of the local administrator, and with the cognizance of the county superintendent?
4. Were all the nine agencies concerned with secondary education in northern California adequately represented on the Advisory Board?
5. Was the Advisory Board able to obtain funds from a research foundation to pay the salary, travel, and clerical expenses of a director, together with the expenses of consultants who had to work on their own time?

COMMUNICATION

1. Was RPSE responsible for increasing the degree of coöperation among the agencies concerned with secondary education in California?
2. Was RPSE consistent with county-wide planning and curriculum coördination at the secondary level?
3. Were local projects reported to the Advisory Board?
4. To what extent were projects in participating schools publicized?
5. Did activities in project schools spread to other schools in northern California?
6. Did activities in certain departments spread to other departments within the school?

STEPS IN PROCEDURE

1. Were the projects in participating schools chosen locally?
2. Were plans for activities in participating schools made locally?
3. Where were the procedures and materials developed?
4. Was inservice education effected?

5. Did the plans made have any effect on the actual classroom procedures in any project schools?

6. Was there observation of modified programs?

7. To what extent were the changes appraised and evaluated?

8. Did the problems chosen by the various schools vary to the extent anticipated?

9. Were activities in project schools compared with those in nonparticipating schools?

EDUCATIONAL OUTCOMES

Each of the criteria listed below is to be considered only with respect to the Regional Project in Secondary Education and its participating schools.

1. Did teachers plan their programs so as to provide to an increased extent for (*a*) needs as regards treatment, (*b*) needs as regards outcomes?

2. Was there implementation of the plans to provide for student needs?

3. Was evidence collected of increased learning in subject areas on the part of students?

4. Was evidence collected to show greater holding power?

5. Did students feel that better care was being taken of their individual needs?

6. Did teachers make use of new instructional materials?

7. Did teachers, alone and in groups, make use of a variety of resource persons?

8. Did the RPSE bring about the changes and developments that took place in participating schools?

IV. THE DEVELOPMENT OF THE REGIONAL PROJECT IN SECONDARY EDUCATION

To permit an understanding of the purposes of the Regional Project in Secondary Education, a brief account of the manner in which the project developed is provided.

INITIATION OF THE PROJECT BY ADMINISTRATORS

Section 9 of the California Association of Secondary School Administrators has for some time pursued a policy of holding its semiannual meetings at an isolated ski lodge. Here the principals of several of the

northern counties of California can escape the routine of their offices and give uninterrupted attention to a few of their major problems.

At the fall meeting of 1949, the problem of teacher training received much attention. Principals felt that teachers were not being adequately trained to meet their responsibilities. Specifically, teachers were not varying their teaching procedures enough to meet the individual needs of their pupils. When the principals attempted to draw up a letter to the teacher-training institutions spotlighting this defect and giving suggestions for improvement, they realized the necessity of providing demonstration schools where student teachers could observe and practice this individualized kind of teaching.

Help Sought from the Supervisors

At the suggestion of one or two members of the state college faculty at Sacramento, a request went from the principals to the Northern Section of the California School Supervisors Association, asking that organization to list schools and classrooms where this individualized teaching could be demonstrated. The supervisors were unable to provide this information; apparently, in their opinion, no high schools in northern California were successful enough in meeting individual differences among pupils to be suitable demonstration schools. The supervisors were, however, willing to coöperate in the search, and so, at the Lucerne Conference, they appointed a committee known as the Coöperating Group on Teacher Education.

Entrance of the State Colleges

This committee met at the Sacramento State College on June 10, 1950, and again on September 13, when its name was changed to Advisory Board. A detailed plan of operation, prepared in the meantime by the chairman, James Bradfield, was discussed at the September meeting, amended, and returned to Dr. Bradfield for further study.

On November 8, 1950, "The Regional Project in Secondary Education" was adopted as the official name of the contemplated program; and in January, 1951, the revised operational plan was finally approved. The clearly stated purposes of this plan are used in section 3 as sources of the criteria by which to evaluate the eventual success of the RPSE.

Advisory Board

By the beginning of 1951 the Advisory Board of the Regional Project in Secondary Education had grown to nearly thirty members. On it

were representatives of the State Department of Education; of the Sacramento, Chico, and Humboldt state colleges; and of county offices of education. The membership included high school principals, and also representatives of the California Teachers Association, of the California Congress of Parents and Teachers, of the California School Supervisors Association, of the California Association for Child Welfare and Attendance, and of the California Association of Public School Superintendents.

To facilitate action, an Executive Committee of five members was elected by the Board at its meeting in January, 1951, to implement its policies.

Executive Committee

One of the first acts of the Executive Committee was to petition the Rosenberg Foundation for $14,000 to finance the office of a director for the twelve months from September, 1951, to September, 1952. When this petition was granted, the Executive Committee selected Wilson Little as Director. After serving for a year, Dr. Little resigned and Bentley Edwards was chosen to take his place. The Rosenberg grant was renewed for a second year.

The purpose of the RPSE was to develop, in the schools, ways and means of making greater provision for individual differences. Plans were laid to provide help for the staff members of a local school as they sought the solution of a locally chosen problem. Although projects were arbitrarily limited to a small number of participating schools, it was hoped that the kind of activity begun by the RPSE in a few schools would continue, and would spread to other schools.

Activities of the Director

The first duty of Dr. Little was, therefore, to assist schools to identify their problems. For this purpose, he used a mimeographed form which he took around to many schools in northern California. Of the nearly 100 schools that were visited, 18 had completed project-identification forms by May, 1952, and the members of the Advisory Board decided to accept no more schools after that date. These 18 schools are all in northern California, but 3 of them are more than 300 miles from the central office of the RPSE in Sacramento. The following list includes a wide variety of problems, yet the single underlying theme is evident. All the schools tried, in one way or another, to deal more effectively with a wide range of individual differences among students.

1. Improving reading ability of present students (schools 2, 8, and 9)
2. Integrating English with all other classes (school 1)
3. Planning a program for the development of correct oral usage for high school students (school 7)
4. Developing a ninth-grade social studies course more nearly to meet the needs of pupils in the district (school 12)
5. Developing a more adequate social studies program for the ninth grade that would include most of the state requirements (school 14)
6. Developing a handbook for guidance purposes (school 10)
7. Establishing a guidance program and cumulative-record system for students of a given county—kindergarten through the twelfth grade (school 17)
8. Developing a program for improving learning conditions for slow learners (school 6)
9. Choosing content and materials and devising methods for teaching very slow (special) learners (school 11)
10. Providing maximum educational opportunity to fit the needs of secondary school pupils in the district (school 13)
11. Evaluating the general education program at a junior college (school 16)
12. Developing techniques of classroom instruction in a general science class in which there is a wide range of student ability (school 15)
13. Decreasing the gap between elementary and high school and developing a maximum program for students within the limitations of staff and other available resources (school 3)
14. Analyzing the over-all health education program with a view to better coördination and improvement of this phase of instruction (school 5)
15. Evaluating present common learnings program for ninth and tenth grades and extending this program through grades eleven and twelve (school 4)
16. Improving the music education program for pupils in the high school (school 18)

Analysis of the foregoing list is interesting for two reasons: it indicates the kinds of problems that individual schools consider to be of paramount importance, and items in the list may be compared with the brief descriptions of the activities in participating schools which will be given later. In summary, 3 of the schools were concerned with the improvement of reading ability, 2 with better English, 2 with social studies, 2 with guidance, and 2 with the slow learner. Two schools made a frontal attack on the curriculum, 1 was concerned with a science course, 1 with articulation of elementary school and high school, 1 with the health of the pupils, 1 with a program of common learnings, and 1 with music education.

Once the problems had been chosen in individual schools, it was necessary to identify the resources available for their solution. It may seem surprising that these resources should need to be identified, but persons who visit the schools, the county offices, and the various educational institutions of this state are constantly amazed at the lack of

intercommunication among the various agencies. The reasons for this lack of communication it is only possible to guess. Perhaps the fact that each professional organization holds separate meetings has a bearing. For example, the principals invariably meet by themselves at the district, regional, state, and national levels. The supervisors have considerable pride in the many admirable characteristics of their own meetings. County superintendents are in the habit of meeting alone. Until recently, too, the faculties of the state colleges have had very little communication with their neighbors teaching in the public schools. Indeed, except for members of the faculties of education, it has been rare to find a college professor personally acquainted with the local county superintendent. With steady growth in the conception of state colleges as regional colleges, this insularity is slowly diminishing. All those concerned with education in a region need to be able to communicate with one another more freely.

In order to establish channels for better communication, the Director, early in the fall of 1951, sent forms for the identification of resource persons and material to county superintendents, the State Department of Education, and the state colleges. Each of these forms called for a listing of personnel together with their qualifications, a bibliography of books and materials available, and a list of audio-visual aids.

Once this information concerning resources had been collected, a complete listing of all the resources available to a given school was sent to the principal of that school. The service was provided to all schools participating in the RPSE. In each instance the service was personalized, in that the resources listed were those appropriate to the needs of that particular school.

Campus Meetings

To provide opportunities for resource people to meet those working on curriculum problems in local schools, five meetings were held in the two years 1951–1953 for all those interested in the RPSE. To reduce travel distances, two meetings were held on the campus of the Sacramento State College, and two on the campus of the Chico State College. A final combined meeting was held on the new campus of the Sacramento State College.

Invitations to the first meeting went to: (*a*) the principal and at least one teacher in each participating school, (*b*) personnel in county offices of education, (*c*) representatives of the California State Department of Education, (*d*) all members of the RPSE Advisory Board,

and (*e*) interested members of the faculties of the Chico and Sacramento state colleges. Activities at nine participating schools were described by teachers in these schools. During the afternoon, opportunities were provided for informal discussion in small groups.

The other meetings were similar in nature and did much to provide the sentiment needed to stimulate and unite the various personalities involved.

V. THE REGIONAL PROJECT IN EIGHTEEN PARTICIPATING SCHOOLS

Toward the middle of the third year of operation, several of the schools participating in the Regional Project in Secondary Education were ready to make reports. By the end of the third year, reports from nine schools were completed. Summaries of these nine reports are now presented, together with short statements concerning the RPSE activities in the remaining schools.

1. The first of the participating schools is situated at the edge of a high plateau in the northeast corner of the state. Approximately 50 students attend this high school, and they are served by 4 teachers. One of these teachers is the principal, and under his leadership the faculty decided to concentrate their attention for a year on the reading, speaking, writing, and listening of their students.

At the outset, each student was given individual tests of his ability to read, write, speak, and listen. Close coöperation among the four teachers was demanded in order to schedule all these tests. The test results sharply focused the attention of teachers and students on the improvement of these skills. To assist the faculty in making full use of the test results, three faculty meetings were held at the school and were attended by the county superintendent, the county coördinator of secondary schools, the elementary school supervisor, and the Director of the RPSE. In addition, the head of the Speech Department and a professor of secondary education from the Chico State College made an all-day visit to the school to consult with the principal and his faculty.

The principal, one of his teachers, and the county coördinator attended two of the campus meetings of the RPSE held at the Chico State College. At each of these meetings, the principal described procedures at his school and the three men from the participating school met for several hours with a small group including representatives of

other schools, personnel from other counties, and college teachers, all of whom were interested in discussing the problems connected with the teaching of skills in communication.

At these various meetings, the representatives from the participating school gained additional insights into their teaching problems, they learned of new teaching procedures, and they received encouragement from the opportunity to tell others of their activities.

2. School 2 is situated in the Sacramento Valley about 20 miles south of Sacramento. Nearly 500 pupils attend this high school, in which there are 21 teachers.

The problem chosen by this school was the improvement of the reading ability of the students. In order to lay a base line, the Gates Reading Survey was given to all the ninth-grade students, who were then divided into four English classes according to the level of their reading ability. The upper three sections followed the traditional course of study, but the lowest section, with reading levels ranging from grade 2.3 to grade 6.1, was treated as a remedial class. At the end of the year a different form of the same survey was given, and gains for the remedial class averaged one grade. Some of the students made gains of up to two grades and were moved into one of the three upper sections.

As a result of its successful experience, this high school intends to make use of the special methods developed with the poor readers to improve the reading instruction of the better readers. In addition, teachers of other subjects in the school, made aware of the experimental activity in one way or another, have become concerned with the reading problem. A direct result of this concern has been the application of the Flesch Formula of Readability to all the textbooks used in the school. According to the use of this formula, seven of the twelve textbooks examined were found to be too difficult for three-fourths of the pupils in the school. In addition to concern over the reading difficulty of textbooks, this school paid much closer attention during the year 1952–53 to the reading difficulty of books chosen for the school library.

A consultant from the Sacramento State College suggested a number of the techniques used in the remedial class. Use of the Flesch Formula was studied by the remedial teacher during a summer course at Sacramento State College.

Two years after the initiation of the project in this school, the key English teacher and the principal left to go to other positions. Atten-

tion is drawn to these shifts because of the important bearing of changes in personnel on the success of such projects as the one being described.

3. The third school is in a small agricultural community about 100 miles north of San Francisco. It maintains a high school of about 70 students and an elementary school of 145, in separate union districts.

The project in this community was aimed at developing closer coöperation than had previously existed between the high school and the elementary school. Early in the spring of 1951, the two principals sounded out the eleven teachers on their faculties and obtained a strong expression in favor of better use of teachers and equipment through a coöperative program. Faculty committees were appointed to study the problems specifically, and when the members had reported back at their faculty meetings the principals arranged a joint school board meeting, the first of its kind, to present a proposed coöperative schedule of classes.

Members of the two boards discussed the proposals submitted, and during Public Schools Week the proposals were read at a public meeting.

Later a joint faculty meeting was held, with the county coördinator of secondary education as a consultant. At this meeting a final plan for the year 1951–52 was established. At a second joint meeting, full approval was obtained from both boards, and these two boards themselves started to hold joint meetings. As a result, the high school principal teaches seventh- and eighth-grade science and acts as homeroom teacher for the eighth grade. The seventh-grade homeroom teacher coaches the high school B team in basketball. The elementary school principal teaches music in all the grades, as well as teaching high school Spanish. Because of such coöperative use of the staff and because the elementary school children mingle with the high school students to a limited extent, the hiatus that formerly existed between grades eight and nine is now greatly reduced. As a consequence, drop-outs in the freshman year have dwindled to the vanishing point. To facilitate the coöperative use of teachers, this community now has made its salary schedules in the two districts comparable.

On September 10, a very few days before school was to open, the elementary school was completely gutted by fire. This emergency was met by the schools and by the community in a most sturdy fashion. In the first place, the high school offered the use of a number of facilities

made available by increased use of the gymnasium and by some slight additional crowding. Fortunately, the American Legion had just finished the construction of a fine building, containing separate rooms and an auditorium, immediately behind the high school. Without question the members of the American Legion not only surrendered their fine building for the use of the school children, but gave valuable assistance in adapting it to school use. When the Director visited the community late in the fall, there was little evidence that the disaster was hampering teaching in either school.

4. School 4 is near Stockton in the valley of the San Joaquin River. The project at this high school is the development of a program of common learnings very similar to the program described in the booklet put out by the Educational Policies Commission, *Planning for American Youth* (23).

The school now has a full-fledged program of common learnings running through all four years. At present, pupils in grade nine have three successive periods daily with the same teacher, during which they pay attention to subject matter usually thought of as English, social studies, science, and mathematics. In grades ten and eleven, students spend only two periods with the same teacher; and, although at present there is but one period of common learnings in grade twelve, the plan is to devote two periods to common learnings in the future. In grades eleven and twelve only the social studies and English are integrated.

This project has excited considerable interest, both locally and in neighboring schools. Visitors to the school are impressed with what they see. The program is completely modern, there is an abundance of instructional material, the classrooms contain flexible furnishings, and the attitudes of both students and faculty indicate high morale. In addition, students make more use of the school library than they do in most schools. Reporting to parents is now almost entirely done by the conference method, and there is a strong move to bring more and more of the subject-matter teachers into close coöperation with the teachers of common learnings.

The Regional Project in Secondary Education cannot take full credit for the excellent program at this school, for this program has been developing during the past seven years. However, letters from the principal of the school and conversations with faculty members indicate clearly that the RPSE has been of great assistance. The Director of the RPSE was able to recommend suitable consultants to the principal, and suggested to him how funds might be used to pay for them. Visits

from teacher trainees and from teachers in neighboring schools were arranged by the Director.

There is some indication that relations between this high school and the county office of education have improved. Certainly, its relations with the state colleges, both at Sacramento and at Chico, have improved to a very marked degree.

5. School 5, in a fairly large town a few miles north of Sacramento, enrolls approximately 1,500 students. There are nearly 70 faculty members. The problem there is to coördinate various aspects of health education. These include: a course known as "Health Science" which all pupils are expected to take; a program of health services with a full-time nurse in charge; the physical education classes; and various units in social studies, English, and so on, that may be construed as being primarily concerned with health education. In addition, an attempt has been made to bring the general school activities of all teachers into harmony with the health requirements of the pupils; for example, teachers who had been stressing the penalties of being absent from school began to coöperate with the school nurse, who advised students to stay home when they had contagious colds.

The dean of boys was in charge of the project, but great enthusiasm was generated by both the principal and the superintendent. The Regional Project in Secondary Education sent its Director to the school a number of times, to introduce health consultants from Chico State College, Sacramento State College, and the State Department of Education.

6. School 6 is at a mountain town famous in the gold-rush days in California. In this school of approximately 1,200 students, a class of slow learners was separated for special instruction. The instructor was the school football coach, a popular young man especially gifted, though not trained, for work of this kind.

The Director made several visits to this community, calling on the president of the local junior college, the principal of the high school, and personnel in the county office of education.

The teacher of the special class attended two meetings of teachers, consultants, and teacher educators at Sacramento State College. There he told not only of his extraordinary difficulties with the group of retarded students, but also of his really inspiring successes in personal counseling with class members and in teaching skills, such as the arithmetical, adjusted to their individual abilities to learn. The campus

meetings, sponsored by the RPSE, were an opportunity for this teacher to learn from experts in the fields of special education and guidance and to communicate to them what he had discovered in his own work. Many who heard him felt that his individualized approach could be used to advantage in all classrooms.

7. The seventh school is approximately 75 miles north of Berkeley. Nearly 200 students attend this modern high school, which is in a small town that serves the business needs of a farming community.

The shop teacher of this school complained to the principal that his students had poor oral expression, and the principal decided that the school should do something about the situation. With the assistance of the Director of the RPSE, arrangements were made for a team of consultants from the county office and from the Sacramento State College to visit the school. These consultants tested the oral English of many of the students, taking tape recordings of talks made by a few of them. During the rest of the first year, emphasis was placed on the presentation of oral reports in various classes throughout the school.

In the year 1952–53 the principal asked for another visit from the team of consultants, so that progress could be measured from the base line previously established. At the time of this visit, which was arranged by the curriculum consultant from the county office with some assistance from the Director of the Regional Project, the consultants gave no tests. Instead, they visited classes, talked with one another and with the principal, and spent most of the afternoon meeting with the principal and his teachers. At this meeting, vigorous attempts were made to persuade the teachers to give their own ideas concerning changes they thought desirable in the curriculum of the school.

After this meeting, the curriculum consultant from the county office made a number of follow-up visits to the school, and her working relations with the principal and his faculty improved steadily. Eventually she and the staff wrote a report dealing with the project. This report included a certain amount of evaluation by the teachers which might be summarized in the following way:

a) The stress on oral English is meeting a need in the school.

b) Formal tests of oral English are difficult to make.

c) RPSE has stressed the need for the correlation of oral English with other subjects.

d) There are opportunities for the cultivation of skill in oral English in out-of-class activities, such as those represented in the student council, the community's Youth Day, and athletics.

e) Since the project started at this school there has been less lecturing, more student participation, more teacher-pupil planning, better rapport, and more spontaneous sharing of ideas.

f) There has been efficient use of the tape recorder for the improvement of student language.

g) Instruction in each of the subject-matter areas has been modified extensively so as to provide greater opportunity for experience in oral English.

School 7 is working much more closely than before with the county office of education. As a result, work on the original problem has led to considerable development of method and content in the program of this school.

8. School 8 is a rural high school of approximately 250 students. It is situated in the valley of the San Joaquin River about 30 miles from Stockton.

At this school the problem was the improvement of reading. Careful testing of the intelligence and the reading ability of the students over a period of a year indicated that it might be wise to pay additional attention to the teaching of reading in the high school.

Early in the fall of 1952 the Director of the RPSE, on his first visit to the school, was asked to suggest the name of a consultant who would be able to show some of the teachers how to teach reading in the high school. There was a vigorous demand for someone thoroughly experienced and practical, that is, able to demonstrate actual techniques which could be used in the classroom.

To meet this demand, the Director suggested the name of a reading teacher in one of the large city high schools in the Bay Area and arranged for her to meet with the principal and a group of teachers. At this meeting the new consultant so impressed the group with the value of her suggestions that they arranged for her to make a succession of monthly visits. On one occasion, the group traveled to the city to observe the consultant in her own classroom.

Teachers at school 8 became aware of the reading potential of their students; they learned techniques for teaching reading. Unfortunately, more than half of those who received this inservice education left the school to take new positions at the end of the year. However, a nucleus of those who worked with the consultant has remained in the school, and the new teachers, most of whom are recent graduates from teacher-training institutions, seem to be highly receptive to the idea of teaching reading in all the subject-matter areas.

9. The ninth school is near Lake Tahoe in the Sierra Nevada. Nearly 500 students ride busses along the snow-lined highways to attend this school, which is operated by an unusually wealthy school district.

During the first year of the school's participation in RPSE, the principal and faculty received the help of several consultants from Sacramento State College as they worked to overcome the reading disabilities of a number of their students.

At two of the campus meetings, the principal was able to report noticeable improvement, but he moved to a different school at the end of the year. His successor, faced with the need to adapt to a new situation, chose to withdraw from the project during the second year of operation.

10. School 10 is one of the small high schools of the Central Valley of northern California. As a step toward improving articulation with the elementary school, the principal and faculty of this high school have prepared a student handbook to be used in ninth-grade orientation classes. At present, this handbook is mimeographed and contains twenty-nine pages, including sections on school regulations, the grading system, advisers and guidance service, student organizations, publications, athletics, graduation requirements, university entrance requirements, school songs and yells, and the school calendar.

The RPSE arranged for consultant help from a guidance person at Chico State College, and the Director met with the principal and faculty many times.

The school's experience with the student handbook was so rewarding that the principal and faculty were working in 1953–54 on a corresponding handbook for teachers.

11. School 11 enrolls 250 students in a town in the northern mountains of the state. During the first year of the RPSE, this school made excellent progress in planning for a special class for mentally retarded children. At the end of this first year, the principal took a new position and the school elected to mark time on the project.

12. School 12 is one of the comparatively rare high schools that enroll students in grades seven, eight, nine, and ten, as part of a 6-4-4 organization. The project at this school was the preparation of a ninth-grade course in social studies, with the emphasis on local government. This school, with 1,500 students enrolled, is on double session, and 4 teachers are engaged in giving the social studies course. Although these teachers

have been encouraged to coöperate, especially in sharing information and materials, it is interesting and gratifying to note that each of them organizes and presents his course in a different way.

The principal and the teachers from this school attended meetings on the campuses of both the Sacramento and the Chico state colleges, and in addition to suggesting techniques and materials to others struggling with the ninth-grade social studies, they were able to tell of some of the unique problems that confront the high school operating in a 6-4-4 system.

13. School 13 has only 2 teachers and enrolls 25–30 students. The problem in this school was to plan an efficient procedure for a county high school cut off topographically from the rest of the state. Children attending this school live on a plateau at an elevation of 8,000 feet. During the winter, roads are often blocked for days, and the children stay at home. In summer they must stay at home to help provide services for the tourists flocking through.

But the school has advantages. It is the social center of the community. All the teachers, elementary and high school, meet together regularly. The county superintendent is immediately responsible for directing the entire educational program.

First, the county superintendent saw the need to make teaching positions attractive. The county now boasts of the services of a number of excellent teachers, and they are staying on the job. The next step is a building program that will meet the specific needs of the community.

14. School 14 is in a town which is the county seat of a prosperous agricultural county near Sacramento. The problem at this school was the revision of a course in social studies for grade nine. This revision was carefully worked out in a year-long series of weekly meetings. The meetings were held in school time, and substitutes were provided for the two teachers of the course so that they could attend. Other regular attendants were the principal, the vice-principal, and two men from the county office. The Director of the RPSE also came to most of these meetings, and each time he arranged for some consultant from either a state college of the State Department of Education to be present. On two occasions, personnel were invited from neighboring county offices of education. The director of audio-visual services from the county office presided as chairman of all meetings and wrote the final report.

The course, which is closely linked with citizenship education in grades seven and eight, was being taught concurrently with the plan-

ning meetings. This unusual circumstance made it possible to revise teaching plans immediately in the light of classroom experience. The first half of the course begins with orientation to the school, continues with a study first of the town and then of the county, and ends with a study of state government. To vivify the study of town and county, local government officials come to the school and students go to the officials; the judge comes to the school and the students spend a day in his court. To enhance the value of the study of state government, the local state senator visits the school to answer a series of questions sent him beforehand by the students. A good part of the energy of the school's local project committee has been spent in the search for instructional materials.

In the second semester, the course includes first a unit on vocational guidance, followed by units on lifesaving and first aid, and on driver education.

The course was repeated in 1953–54, with minor adjustments, and seems to be highly successful.

15. School 15 enrolls more than 400 students and is situated 70 miles north of Sacramento. It serves an area primarily agricultural, and there is a large peach cannery in the town.

The principal of this school was one of the originators of the Regional Project in Secondary Education, and the special project in his school was the development of a ninth-grade course in science. A full description of this project has been published by the teacher of the course (21).

Previously, general science had been taught to the ninth-grade students in a rather lifeless manner, and the teacher was most dissatisfied with the boredom of the students and their slow rate of learning. Consultants from the Chico State College suggested the use of student projects, committee work, oral reports, and a variety of instructional materials. Thorough testing of the students at the beginning of the year was strongly advised, especially because of the teacher's skepticism concerning the educational value of the suggested methods. These methods proved highly successful in stimulating interest, and the teacher was surprised at the increase in knowledge of science on the part of his pupils.

Although the new methods met a wider range of individual differences than formerly, the teacher reported that he was not very successful with the slower students.

The experimental year just described (1950–51) immediately preceded the first year of the RPSE under a full-time director. In the

course of 1950–51, two faculty members from Chico State College (who were also members of the Advisory Board of the RPSE) met with the high school teacher three or four times. During the last visit the teacher seemed most discouraged and, in spite of having had some success with the methods, spoke of going back to the single-textbook, uniform-assignment, formal-recitation approach. At that time, it seemed that little of a permanent nature had been accomplished.

In the spring of 1952, the new Director of RPSE organized the first of the combined meetings on the state college campuses. Apparently, the science teacher from school 15 received enough stimulation from this meeting, at which he reported, to take him over the hump. From that time on, he has used the newer methods in his own classes, has encouraged other science teachers in the school to teach more effectively, and at present is spearheading reorganization in other subject-matter areas.

16. School 16 is a large junior college. The faculty at this school sought help to develop a full program of general education.

In the first year, the Director of the RPSE made several visits to the school, consultants were introduced from the state colleges, and tentative plans were laid for extensive committee work.

The following year, both the president of the college and the Director of the RPSE left to accept other positions. The two new men chosen to take their places met on several occasions, and relations were most cordial, but the original plans were not followed through, and, to all intents and purposes, the project was dropped at this institution.

17. At school 17 a new cumulative-record card for use in all grades from kindergarten through grade twelve was designed, prepared, and tested.

This project was completed most efficiently in a few weeks by a committee consisting of an elementary school supervisor, the curriculum coördinator of the county, and the vice-principal of the high school.

18. The eighteenth participating school enrolls 80 students. It is 70 miles northwest of Sacramento. The curriculum problem selected by this school was the development of an all-round program in music.

About thirty-five years ago, bands from this school won the national championship award for three years in succession. Today, the children of many of these famous bandsmen are in high school, and many of them, warned by their parents against the evils of overspecialization, were reluctant to join the band. As a result, music education at this school was at a low ebb.

During the years 1951–1953, this school was able to develop a broad program in music. There is a small but well-trained brass band; the girls have a colorful drum and bugle corps; there is a girls' glee club, and a boys' glee club, and a mixed glee club; and there is a popular class in music appreciation. Although participation has not reached 100 per cent as it was in the championship days, it has reached 74 per cent. Music is now primarily used to educate the students, rather than to win glory for the school.

This program has succeeded mainly through the efforts of the music teacher, but he has not gone unaided. The principal has coöperated actively by inducing a sympathetic attitude in the community, by persuading the school board to contribute additional funds, and by establishing contacts outside of school. The county office of education has helped, especially by aligning music education in the elementary feeder schools with the experimental program in the high school. The Director of the RPSE was able to bring in consultants from the state colleges and from neighboring high schools and to encourage the local school people to share in the momentum of the over-all project.

VI. THE DATA

In order to evaluate the Regional Project in Secondary Education in the light of its operational plan, a wide variety of data will be summarized and discussed. The sources of data are described below.

Reports from Participating Schools

Statements varying in length from three to twenty-nine single-spaced typewritten pages are available from nine schools. Abstracts of these statements, prepared by the Director, have been presented in the preceding section, together with his brief summaries of the activities in most of the other schools.

Eight of the nine rather lengthy reports from participating schools were written by persons closely connected with the local programs, as is shown in table 1.

None of these reports was easy to obtain. A rather special procedure was used to obtain the report from school 15. This was the first report to come in, and it has since been published (21). Under prodding by the curriculum coördinator from the county office, the teacher of the course, one of his colleagues, and the school principal met in May, 1952, on the campus of the near-by state college with two men from the college faculty—one from the Department of Education and the other

TABLE 1

AUTHORS OF REPORTS FROM PARTICIPATING SCHOOLS

School	Author of the report
2	Teacher of the remedial group
3	The two local principals
5	The vice-principal
7	County consultant, working with committee of teachers
10	Entire local faculty
14	Consultant from county office, who was also chairman of all meetings
15	Teacher who gave the course that was being revised
18	Local principal and the music teacher

from the Department of Physical Science. The curriculum coördinator was also on this committee, and together they outlined the report in some detail. The teacher wrote the first draft of the report in the summer vacation. In the fall, the committee edited his original draft, but made few additions or changes.

The other reports were written at the insistence of the Director and were edited by him. As each came in, it was mimeographed, given a bright, attractive cover, and distributed to educators in the approximately 150 schools in northern California as well as to other interested persons.

LETTERS OF APPRAISAL

Members of the Advisory Board, principals and teacher representatives of the California State Department of Education, and key persons in the state colleges were asked to submit letters of general appraisal of the Regional Project in Secondary Education. More than 40 letters were received by the Director, many of them two or more pages long. The response to requests for letters was nearly 100 per cent. In the request for these letters, no attempt was made to influence the structure of the responses. Most of those replying were familiar with the operational plan of the RPSE—indeed, some of them had helped to formulate it and had approved the final draft.

QUESTIONNAIRE TO TEACHERS IN PARTICIPATING SCHOOLS

A questionnaire was prepared for distribution to teachers in eight of the participating schools. These eight schools—3, 4, 5, 7, 8, 10, 14, and

18—were selected because of sustained interest on the part of the principal, and because the problems chosen were broader and likely to involve more teachers. Frank answers were encouraged by the assurance that the teachers who responded would remain anonymous. Those who were new to their positions since the end of the projects were asked to indicate the fact. Twelve teachers answering said they were new. A bundle of questionnaires was sent to each of the eight principals for distribution to staff members. Responses were received from 87, constituting 57 per cent of the total number of teachers.

Questions were designed for "yes," "no," or "undecided" responses. After the more involved questions, space was provided for elaboration. The 31 questions asked and the distribution of replies to each question were as follows:

	Yes	*No*	*No ans.*	*Und.*
1. Have you heard about the Regional Project in Secondary Education, RPSE?	68	19		
2. Are you aware that your school is one of 18 taking part in RPSE?	60	21	6	
3. Are you familiar with the organization of RPSE?	36	45	6	
4. Are you aware of the purpose of RPSE?	51	29	6	1
5. Do you think that the existence of RPSE has modified procedures in your school?	35	27	10	15
6. Could you cite a particular instance where a procedure in your school was modified as a result of the school's participation in RPSE?	31	42	9	5
7. Do you think that your teaching procedures have been modified in any way as a result of RPSE?	29	43	7	8
8. Could you give an example to show where your procedure was modified?	27	45	10	5
9. Has RPSE helped you to become more familiar with resource people to help you in your teaching?	29	45	8	5
10. Has RPSE helped you to become more familiar with resource material to help you in your teaching?	23	48	10	6
11. Have you felt personally stimulated by the activities of RPSE?	29	44	8	6
12. Do you think that your relations with your principal have improved as a result of RPSE?	15	49	13	10
13. Do you think that your relations with the county office have improved as a result of RPSE?	14	53	10	10

	Yes	*No*	*No ans.*	*Und.*
14. Do you think that your relations with your fellow teachers have improved as a result of RPSE?	19	47	12	9
15. As a result of RPSE have you become more sensitive to the needs of high school students?	31	39	11	6
16. Have you learned something more of what is going on in other departments of your school through the activities of RPSE?	26	47	10	4
17. Has RPSE increased your awareness of the extent of individual differences among high school students?	26	44	11	6
18. As a result of RPSE have you become more aware of the problems encountered in the elementary schools?	16	59	8	4
19. Have you learned more, through RPSE, about what is going on in any of the colleges or universities in California?	16	59	8	4
20. Have you learned more, through RPSE, about what is going on in the elementary schools that send pupils to your high school?	16	58	9	4
21. As a result of RPSE have you become aware of the problems encountered in the colleges and the universities in California?	11	61	9	6
22. As a result of activities of RPSE, have you paid more attention to the community in which your school is located?	14	61	8	4
23. Have you read any of the reports put out by RPSE?	33	44	7	3
24. Have you read the report of the project in your school?	30	47	8	2
25. Have you read several of the reports put out by RPSE?	23	54	8	2
26. Have you read most of the reports put out by RPSE?	9	67	8	3
27. Have you read all of the reports that you can find put out by RPSE?	12	62	10	3
28. Would you consider attending a workshop put on under the auspices of RPSE?	47	16	8	16
29. The chief purpose of RPSE is to help individual high schools to solve their curriculum problems. In general, do you approve of this purpose?	73	5	6	3
30. Would you like to see the activities of RPSE continued?	51	9	11	16
31. In the past, RPSE has been financially supported by the Rosenberg Foundation. Are you in favor of using public funds to support RPSE?	35	26	12	14

Questionnaire to College Professors

A questionnaire calling for free responses was submitted to 15 college professors at Chico State College, and 15 at the Sacramento State College. No signatures were requested, but many of those responding signed their names. Forms, accompanied by a mimeographed covering letter and a stamped, self-addressed envelope, were mailed individually to the professors, each of whom was chosen for his known contact with the project, either as a consultant in one of the schools or by reason of his attendance at one of the campus meetings. All of this group were included in the sample. Twenty-five of the 30 replied. These professors represented a number of different departments at the two colleges. The questions submitted and the distribution of replies to each one are as follows:

	Yes	*No*	*Und.*
1. Have you heard about the Regional Project in Secondary Education?	25	0	
2. Have you read any of the reports put out by the leaders of this project?	21	4	
3. Did you attend any of the campus meetings arranged by the Director of RPSE?	24	1	
4. To what extent are you in favor of college professors from all departments assisting in the development of high school curriculum?	[Twenty-four of the professors were more or less in favor of having college professors from all departments give assistance.]		
5. In general, are you reasonably satisfied with what is going on in the high school by way of preparation for college, or do you feel that major revisions are needed?	[Satisfied—13]	[Revis.—11]	1
6. Do you think that RPSE was working toward effective coöperation between high school and college faculties?	24		1
7. Did you learn more about what is going on in high schools as a result of RPSE?	22	3	
8. Were you able to take any action with respect to the high school program as a result of RPSE?	14	9	2
9. Have you been able to coöperate more easily with other educational agencies as a result of RPSE?	8	4	13

	Yes	*No*	*Und.*
10. Are you in favor of the continuation of the activities of RPSE by means of state funds?	20	3	2
11. What changes in RPSE procedures would you suggest?	[Change—11]	[No change—5]	2
12. Were any glaring weaknesses in the program apparent to you?	10	9	2
13. In what way do you feel that the program was successful?	[In summary, 22 of the 25 professors made statements to indicate that, in their opinion, RPSE was highly successful.]		

Questions to Lay Members of the Community of Linden

More involvement of the lay members of the community was achieved at Linden than elsewhere. The list of members of the community who were presented with questions was prepared by the Linden principal. Those chosen were thought to be the ones most interested in the work of the school. Forms were delivered personally by students of the Linden High School, and a form letter accompanied each of the questionnaires. When the returns were totaled, it was found that only 10 of the 25 questionnaires had come back, or 40 per cent. Although the response was poor, these returns have been included, less for what they tell of the success or failure of the RPSE than for what they tell about the difficulty of getting information from citizens.

	Yes	*No*	*Und.*
1. Had you already heard about this new program for the Linden High School freshmen?	9	1	
2. Do you approve generally of the changes in the high school program that you know about?	8	1	1
3. Have you read the report of the recent activities at the Linden High School?	6	4	
4. Do you understand reasonably well what the teachers are trying to do with this new program?	8		2
5. Has your attitude to the high school improved during the past few years?	6	2	2
6. Have you noticed any improvement in the behavior of the high school students in recent years?	2	3	5
7. Some people think that when grade nine students are with one teacher for nearly half of every day they learn more. Do you agree?	3	4	3

	Yes	*No*	*Und.*
8. Some people think that when one teacher has the same students for nearly half a day more help can be given to an individual student because the teacher knows him better. Do you agree?	7	2	1
9. Would you like the principal and the teachers of the Linden High School to continue to receive help from outside sources?	8		2

Questionnaire to Nonparticipating Schools

A questionnaire, with a covering form letter and a stamped, self-addressed envelope, was submitted to 54 principals of nonparticipating schools in northern California. All these principals had received copies of the reports from the RPSE schools. Answers to the questionnaires were received from 47 principals. Although most of the answers were not signed, they could be identified by means of the postmarks. A simple numerical summary of the returns to this questionnaire is not possible. Returns will therefore be included in the next section, which gives a treatment of all the data.

Comments by Students in One High School

These comments by students in one school apply only to the local project, but they indicate the nature of pupil reaction in one of the participating schools. No attempt will be made to generalize the pupil reaction in other schools.

"You don't get so bored when you have speakers and go on trips. You take more interest and learn more."

"I thought a visit to court would be more exciting. I guess I've seen too many on television or in the movies."

"I think you learn by talking to people downtown and getting their opinions."

"Field trips are good. Lots of people have never been inside the sewage disposal plant to see how all those things work. But I have."

"In committee work you get to work with other guys. We divided the work all up and put it together."

"When you lose interest you start fooling around."

"I got a lot out of this course because it wasn't just out of a book. It was a lot of fun."

"At court that morning we got tired and bored. Sometimes the judge used words I didn't know the meaning of."

Part of the information presented is susceptible of further treatment.

VII. TREATMENT OF THE DATA

The purpose of collecting the data just described is to test the success of the Regional Project in Secondary Education according to criteria drawn from the operational plan. The degree of success is important, for a large success leaves less doubt than a little one; but an accurate, quantitative measure of the exact degree of success is not wanted, neither is it sought.

Numerical values will be used in the treatment of the data, but merely to collate the separate items and to organize a mass of opinion. And the use of this word brings up the question of objectivity.

In light of the criteria listed in the operational plan, a completely objective statement concerning the success of the RPSE is probably impossible, at least at the present time. For a number of these criteria, the difference between what is so and what is believed to be so is elusive. For example, a major explicit purpose of the project was to increase coöperation among schools, state colleges, county offices, and the State Department of Education. For a large majority of the people manning these educational agencies to be of the opinion that the degree of coöperation has increased is certainly a start in the direction of complete factual coöperation. Therefore, the degree of coöperation may be believed to have increased when a substantial number of these people say that it has.

Support is provided for tentative conclusions when they are derived from separate lines of investigation. For this reason the various collections of opinion will be compared with reports of activities in participating schools. Lest this comparison prove more convincing than it should, it must be remembered that many of those expressing an opinion about the RPSE had an opportunity to read the reports before stating their opinion. However, to assume that many of the educational leaders of northern California would be hoodwinked by a comparatively hasty reading of a few reports is either to underestimate the integrity of the leaders or to overestimate the persuasiveness of the reports.

Reports from Participating Schools

Evidence of progress toward a number of the purposes listed in the operational plan may be obtained from the reports of activities in participating schools. Most of this evidence may be drawn from the short reports presented in section 5.

The needs as regards treatment are used as items in table 2, and the extent of the activity with respect to these needs in each of the schools is entered in the appropriate column. The first column, headed "Some faculty study," indicates a small amount of activity with respect to the need. If the school has carried on only a small amount of activity with respect to this need, the number of the school is entered in this column opposite the itemized need. All these choices have been checked by a number of others connected with the project, and the reports from the schools are readily available for further checking. Columns 2 and 3 are labeled "Some faculty study and consultant help" and "Much faculty study and consultant help," respectively. Column 2 refers to intensive study by a small number of the faculty members as well as intermittent study by a large number of them.

An entry in column 3 means that a large part of the faculty made an intensive and continuing study of the need and has received consultant help. Originally, a fourth column was set up, similar to column 3 but designed for faculties not using the help of consultants. No entries appeared in this column. The assumption is made that as soon as a large number of the faculty are actively working on a problem, consultant help is demanded.

To yield some kind of an over-all score or rating, an entry in column 1 receives 1 point, an entry in column 2 receives 2 points, and an entry in column 3 receives 3 points. There are 6 entries in column 1; hence 6 points are scored. The 41 entries in column 2 net a score of 82 points; and the 24 entries in column 3 yield a score of 72 points. The total of the points, 160, constitutes the weighted score.

On checking the problems defined in the respective schools it may be seen that 7 schools did not intend to include more than a few members of the faculty, whereas 7 did plan to do so. Four schools—9, 11, 13, and 16—are not included, because they became inactive on their projects for one reason or another. Hence, to calculate the total possible score which would correspond to 100 per cent success, 42 entries could be expected in each of columns 2 and 3, giving a total possible score of 210. It may be seen that school 17 appears only once, although in the preparation of a cumulative-record card, consideration of each of the needs listed may have occurred. Similar restraint was used in assigning other entries. The measure of success, 160 out of 210, or 75 per cent, is thus conservatively estimated.

Table 3 was prepared in a similar fashion, but this time the measures are of the extent to which the plans worked out by the various faculties

TABLE 2

FACULTY STUDY OF STUDENT NEEDS

(Each of the figures in columns 1–3, opposite a particular need, represents the number of an individual participating school)

Needs as regards treatment	(1) Some faculty study	(2) Some faculty study and consultant help	(3) Much faculty study and consultant help
Instruction appropriate to readiness and learning rate	6	2, 4, 7, 12, 14, 15, 18	1, 3, 8
Handling appropriate to developmental characteristics	6	2, 4, 5, 7, 12, 14, 15, 18	1, 3, 8, 10
Instruction appropriate to the character of the community	6	4, 5, 7, 12, 14, 15, 18	1, 3, 8, 10
Resources for personal advice and guidance	6	4, 5, 7, 12, 14, 15, 17	1, 2, 3, 8, 10
Provision for teacher-pupil planning	6	4, 5, 7, 12, 14, 15, 18	1, 3, 8, 10
Provision for pupil participation in the total life of the school	6	4, 5, 7, 14, 18	1, 3, 8, 10
Total[a]	$6 \times 1 = 6$	$41 \times 2 = 82$	$24 \times 3 = 72$
Goal[b]	.....	2, 6, 12, 14, 15, 17, 18 $42 \times 2 = 84$	1, 3, 4, 5, 7, 8, 10 $42 \times 3 = 126$

[a] Total number of entries in column multiplied by column weight equals total actual score for column. See text of the report for further explanation.

[b] Of the 18 schools, 4 are not entered because of inactivity, 7 planned some faculty study and consultant help (col. 2), and 7 planned much faculty study and consultant help (col. 3). Had these last two groups lived up to their plans, there would have been 42 (6×7) entries in column 2 and also in column 3. These possible totals, multiplied by the respective column weights per entry, yield maximum scores of 84 and 126; 210 represents the goal of 100 per cent success.

were implemented. Success with a few pupils gains an entry in column 1, and so on. Again, the choices are made conservatively, and in certain of the schools limited goals were established. The degree of success in implementing the plans of the faculty is therefore estimated at 80 per cent of the goal.

LETTERS OF APPRAISAL

As has already been explained, the structure of the letters of appraisal was not predetermined by the investigator in any way. Of the 40

TABLE 3

IMPLEMENTATION OF RESULTS OF FACULTY STUDY

(Each of the figures in columns 1–3, opposite a particular need, represents the number of an individual participating school)

Needs as regards treatment	(1) With few pupils	(2) With many pupils	(3) With majority of pupils
Instruction appropriate to readiness and learning rate	2, 6, 12, 15	5, 14	1, 3, 4, 7, 18
Handling appropriate to developmental characteristics	2, 6, 12, 15	5, 14	1, 3, 4, 7, 10, 18
Instruction appropriate to the character of the community	6, 12, 15	5, 14	1, 3, 4, 7, 10, 18
Resources for personal advice and guidance	2, 6, 15	5, 14	1, 3, 4, 7, 10, 18
Provision for teacher-pupil planning	6, 12, 15	5, 14	1, 3, 4, 7, 10, 18
Provision for pupil participation in the total life of the school	6	5, 14	1, 3, 4, 7, 10, 18
Total[a]	18 × 1 = 18	12 × 2 = 24	35 × 3 = 105
Goal[b]	2, 6, 12, 15	14	1, 3, 4, 5, 7, 8, 10, 18
	24 × 1 = 24	6 × 2 = 12	48 × 3 = 144

[a] Total number of entries in column multiplied by column weight equals total actual score for column. See text of the report for further explanation.

[b] Of the 18 participating schools, all but 5 progressed far enough with their local problems to make the implementation measurement meaningful. These 13 schools are distributed among the three columns according as their programs ideally should have affected a few, many, or most of the students. If no school had fallen short of its goal, there would have been 24 entries in column 1, 6 in column 2, and 48 in column 3. These possible totals, multiplied by the respective column weights per entry, yield maximum scores of 24, 12, and 144 points. The perfect over-all score would have been 180 points; the over-all actual score was 147 points.

letters received, 28 might be classed as enthusiastically favorable, 10 as mildly favorable, and 2 as unfavorable.

Of the letters, 25, or 62 per cent, stated that coöperation had improved among the various educational agencies as a result of the Regional Project in Secondary Education. None of the letters stated that relations had deteriorated as a result of the RPSE.

Eighteen, or 45 per cent, of the letters referred to the stimulation received by belonging to an ongoing program. For example, a county officer wrote: "A project like this can get things done where we can't."

TABLE 4
SUMMARY OF LETTERS OF APPRAISAL*

Item	Frequency of mention		Per cent of 40 appraisers making the comment	
	Yes	No	Yes	No
Improved coöperation among educational agencies	25	..	60	..
Stimulation of belonging to a large group	18	..	45	..
Promotion of inservice education	13	..	32	..
Carry-over into other departments and schools	12	1	30	2
Desire to see the RPSE continue	12	..	30	..
Improved care for individual differences	11	..	28	..
A grass-roots approach	9	1	22	3
Permanent improvement to the curriculum	10	..	25	..
Help given to a local school district	9	..	22	..
Increased skill on the part of principals	4	3	10	8
Acceleration of county curriculum programs	5	1	13	2
Well worth the time and the money	5	..	13	..
Professional growth of county officers	2	3	5	8
Promotion of preservice education	3	..	8	..
Improved guidance of pupils	2	..	5	..
Assistance in problem identification	..	1	..	3
Identification of resources	1	..	3	..
Evaluative criteria for individual schools	..	1	..	3
Favorable impression on the community	1	..	3	..
Indication of a warm, friendly attitude toward the RPSE	39	1	98	2

* The sources of the forty letters of appraisal should prove interesting.

1. Officers of the State Department of Education	4
2. State college personnel	8
3. Principals of participating schools	7
4. Teachers in participating schools	3
5. County officers	17
6. Representative of the California Congress of Parents and Teachers	1
Total	40

"I have found the experience of working with such a group to be both stimulating and inspiring," said a teacher. "For me it has been an opportunity for personal and professional growth which I might not otherwise have had."

A college professor commented: "RPSE is a banner under which people enjoy working."

Thirteen, or 32 per cent, said that inservice education had been promoted, and most of the 13 were able to point to particular examples.

Other items referred to in the various letters are listed in table 4.

The items are given in order of frequency of mention, and each item is followed by the number of times it was mentioned. Most of the items were mentioned positively, in such a way as to indicate that the RPSE had moved successfully in this particular direction. A few items were mentioned negatively. Positive statements are listed under the word "Yes."

Questionnaire to College Professors

A number of comments are in order with respect to the replies made by college professors to certain questions asked of them.

Those in favor of having college professors assist in the development of the high school curriculum gave reasons and qualifying statements. These statements generally had to do with the interests of college professors and the time they have available. In spite of these inhibitors, there was a general plea for comprehensive participation.

Those reasonably well satisfied with college preparation in high schools invariably qualified their statements by pointing to the need for curriculum revision. One, for example, would like college-preparatory students to learn how to study and how to make reports; another would like to see arrangements made for visiting teams to go to high schools. Still another deplored the inclusion of unrelated state requirements in a course in world history. Of those dissatisfied with college preparation, at least four favored major revision in the high school program. Others were more specific, pointing to the need for greater emphasis on language skills and for orderliness in the social science program. One professor urged less emphasis on college preparation.

The comparatively large number of "uncertain" answers to question 9, concerning relations with other educational agencies, is interesting. Unfortunately, no reasons were given for the general unease.

Most of those in favor of the continuation of the RPSE by means of state funds added no qualifications. One wished more rigid evaluation, another insisted that high school teachers discover real problems, and a third asked that the project be tied rather closely to an institution of higher learning. The first of these three points seems to be exceedingly well taken.

A number of changes in general method were suggested. At least four of these suggestions pointed to tighter structuring of the program, and a closer link with formal lines of administration.

This plea was reinforced when college professors were asked to indicate weaknesses in the program. One deplored the uncertainty, another

the lack of continuity, and one, with a happy turn of phrase, spoke of the "exuberant informality." Two suggestions here were almost diametrically opposed. One said the program had not received enough publicity; another said the project distributed too many reports, sometimes of imagined changes.

Successes of the RPSE were listed by these college professors in a most encouraging fashion. As in the letters of appraisal, the increase in coöperation among educators at various levels was most frequently stressed, 7 of the 25 professors referring to this success in one way or another. The second success most frequently described is the stimulation to self-analysis provided by the RPSE. This success was mentioned 5 times. Increased knowledge of resources (a clearinghouse for service) was mentioned 3 times, the RPSE was twice referred to as a pilot project, and the opportunity for group action was twice commended.

The grass-roots approach, the recognition of the principal as a key person in curriculum development, and the production of objective evidence of weakness in the education of teachers were singled out for praise of the RPSE by one of the professors.

Questionnaire to Nonparticipating Schools

Much space will be given to a consideration of the returns from a questionnaire to principals of nonparticipating schools. Perhaps the citation of a number of details concerning these returns needs some justification.

For the first, activities in these schools provide the best available control for the RPSE experiment. Although the operational plan called generally for the use of information from nonparticipating schools in this way, there were no specific demands which might have tightened this control. In the absence of careful plans for the collection of evidence, a full description of the available evidence seems desirable.

For the second, curriculum revision is notoriously difficult to evaluate. A mere counting of noses is not very useful. In the present situation, thirteen short sentences are much more enlightening than the isolated and unexplained fraction 13/47.

Finally, it is important to know what help the nonparticipating schools were able to obtain from outside sources. The extent of this assistance is difficult to gauge unless a fairly complete description is available. To assist in the formation of valid judgments, the information from the nonparticipating schools has been tabulated (see tables 5 and 6).

In answers to this questionnaire, 13 principals said there had been major curriculum revision in their schools since September, 1951. Interesting answers were given when these principals were asked to elaborate:

1. "A social studies course at the 9th and 10th grade level was revised to accommodate 'miscellaneous' subjects at 10th grade level and shift world history to 9th grade level."

TABLE 5

NONPARTICIPATING SCHOOLS REPORTING MAJOR CURRICULUM REVISION

Item	Yes	No	Other comments
Major curriculum revision	13	..	
Ready access to:			
a. State Department of Education	8	..	No help asked—1
b. State colleges	8	..	No help asked—1
c. County offices	10	..	
d. Universities	4	..	No help asked—2
Personal visits by personnel from:			
a. State Department of Education	5	..	
b. State colleges	5	..	
c. County offices	11	..	
d. Universities	2	..	
Assistance satisfactory	10	1	
Organized activity by teachers	9	2	
Improved relations with elementary schools	10	1	Satisfactory in past—2
Improved relations with institutions of higher learning	4	7	Satisfactory in past—2

2. "This school was organized in September of 1951."

3. "To better serve youth of this community this was a response to a definite need."

4. "To make certain all State of California requirements are fulfilled adequately."

5. "An attempt to strengthen our general educational program."

6. "Little, if any, revision had been attempted during the decade or two preceding the present effort. English was revised in 1933–34 and Basic Shop introduced in 1950."

7. "Changing needs coupled with financial ability to provide more, and especially a new, administrative organization under which the 6-3-3 plan replaces the 8-4 next year."

8. "This program is still going on and no major changes have resulted from the program."

TABLE 6

NONPARTICIPATING SCHOOLS REPORTING NO MAJOR CURRICULUM REVISION

Item	Yes	No	Other comments
Major curriculum revision	..	34	
Ready access to:			
a. State Department of Education	23	..	No help asked—3
b. State colleges	16	..	No help asked—4
c. County offices	23	..	No help asked—2
d. Universities	16	..	No help asked—4
Personal visits by personnel from:			
a. State Department of Education	13	..	No contact with
b. State colleges	11	..	any of these
c. County offices	18	..	agencies
d. Universities	8	..	—5
Assistance satisfactory	24	1	No answer—3
Organized coöperative activity	13	17	No answer—4
Relations with elementary school improved	10	8	Satisfactory in past —13; no answer—4
Improved relations with institutions of higher learning	7	11	Satisfactory in past —11; no answer—4

9. "Remove duplication in courses offered in science and social science curriculums. Make better use of available time to introduce valuable and pertinent material."

10. "To better adjust the school and its offerings to the abilities and interests of all the students."

11. "Change of administration with resulting differences of opinion as to the curriculum."

12. "We have started a combination jr.-sr. high, partly because of curriculum problems."

13. "We have a special teacher with 5 to 6 in a 'Catch-Up' class, not necessarily 'remedial.' "

Eight of the 13 stated that they had found ready access to the State Department of Education and to the state colleges. Five said they had received personal visits from representatives of these two agencies; 1 said no help was asked.

Ten of the 13 had ready access to the county office of education, and the same 10 had been visited by persons from the county office.

One of these principals carrying on major curriculum revision stated that he had no contact with any of these educational agencies. All but 1 of the 10 receiving assistance from these agencies said that the assistance was satisfactory.

Ten of the 13 schools reported organized coöperative activity by teachers since September, 1951. Asked to elaborate, they gave the following replies:

1. (*a*) "Revised grade point honor system, locally; (*b*) recommended requirement change for graduates in science area; (*c*) recommended addition of courses, namely, drama."
2. "Planned all faculty workshops under Sacramento State College direction with 100 per cent participation."
3. "Several activities have been carried on successfully."
4. "This spring the teachers association established small committees, each having a specialist, to consider the various departments to see if any changes should be made."
5. "Curriculum revision and 'Education-Business' Day."
6. "Analysis of courses offered—duplications discovered and eliminated—new courses organized and presented."
7. (*a*) "Curriculum committees in various subject areas; (*b*) revision of aims and objects of each course including methods of instruction; (*c*) general discussion of school curriculum at faculty meetings; (*d*) sectioning of classes in English, math and social studies—X and Y groups; (*e*) addition or deletion of courses in the majors."
8. "Teachers as a group evaluated the past curriculum to help decide on the present one. Teachers were instrumental in establishing the first salary schedule in Lake County."
9. "We have been studying our curriculum problems seriously as a faculty. We find a serious lack of foundation knowledge which we are all trying to correct before going on to a more diversified program."
10. "In 1951, we constructed a social science guide for kindergarten through grade 12. In the summer of 1953 we constructed a mathematics guide from kindergarten through grade 12. At the present time we are working on a reading guide for kindergarten through grade 12."

Ten of these schools reported improved relations with elementary schools since September, 1951, but only 4 reported improved relations with institutions of higher learning within the same period. These replies are summarized in table 5.

Consideration will now be given to the replies from 34 schools reporting no major curriculum revision since September, 1951.

Although these 34 schools reported no major curriculum revision, 13 of them reported organized coöperative activity on the part of their teachers, as follows:

1. An extension course given by a state college attacking problems raised by double sessions
2. Study of counseling by all teachers; monthly meetings with speakers from all four coöperating agencies
3. Plans for moving into new building and revision of the physical education program
4. Attending conferences, for example, that of the California Association of Teachers of English
5. Work on courses to meet state requirements
6. Departmental committees for curriculum improvement, meeting with principal once or twice a year
7. Revising curriculum for next year in world history, United States history, civics, and "Senior Planning"
8. Work on core program for the ninth-grade level, and revision of report card
9. Curriculum study and revision with the help and direction of the county secondary school coördinator
10. Curriculum work, done largely through the district office
11. Curriculum study in coöperation with a representative of the College of the Pacific
12. Seventeen meetings of the curriculum committee followed by a comprehensive report
13. Groups of teachers worked on general and specific objectives and teaching methods

A summary of the study and a list of conclusions regarding the effectiveness of the RPSE will now be presented.

VIII. SUMMARY AND CONCLUSIONS

Summary

The present study stresses the evaluation of a coöperative project in curriculum development carried on in California from June, 1950, to August, 1953—the Regional Project in Secondary Education.

There have been a number of similar projects under way across the country from time to time, but a major weakness of these projects has

been the lack of sufficient evaluation of their significance. A few coöperative projects in curriculum development were cited in the second section of this report. Next, in the same section, cogent reasons were presented for continuous curriculum development; existing barriers to such development were listed; and, finally, a theory consisting of a number of principles of curriculum development was offered.

Criteria of success are needed, if any project is to be evaluated. These criteria are listed in the third section of this report, following the summary of the operational plan.

A fourth section tells how the RPSE developed from a good, but nebulous, idea in the spring of 1950 to a full-fledged program in the spring of 1953, with eighteen schools taking part.

The stories of progress on the local projects in these eighteen schools are briefly summarized in section 5. Nine of these summaries are abstracts of reports written by school people working closely with a given school; the other nine were written by the Director of the RPSE from his own observations of these schools.

Section 6 presents the raw data: returns from questionnaires to teachers in participating schools, to principals in nonparticipating schools, to college professors in coöperating colleges, and to lay community members in Linden; and also letters of appraisal from forty key persons in the project; and student comment from one of the schools.

In section 7 the raw data are collated and organized for ease of handling. An elaborate statistical ritual is not employed, because the data, though quantized to some extent, are not susceptible of rigorous mathematical treatment. Placement of the zero line with any degree of accuracy is difficult in all educational studies; in this study it is impossible. There is no accurate measure of the extent of curriculum work going on in northern California before the advent of the RPSE, and the attempt to compare activities in project schools with those in nonparticipating schools has been disappointing.

In this final section, data previously reported will be used to support conclusions concerning the extent to which the RPSE reached the goals implied in its operational plan. The data will be correlated, and the evaluative criteria listed in section 3 will be applied to them step by step.

The same data will be used in an estimate of the extent to which the RPSE was able to overcome the barriers to change listed in section 2.

As a final check, the extent will be estimated to which the RPSE complied with the theory of curriculum development given in the second section of this report.

Conclusions

In order to reach justifiable conclusions concerning the worth of the Regional Project in Secondary Education, data previously introduced will be used in answers to each of the questions set up as evaluative criteria. Because some of these questions are long, they will be abbreviated in this section. If any of the shortened statements are not clear, the reader can find the complete statement in section 3. Some of the criteria are considered more important than others. Answers to the more important questions will be longer.

ORGANIZATION

1. Was RPSE able to attract a sufficient number of schools?

The Advisory Board announced in May, 1952, that no more schools would be admitted. The Board took this action because it feared that more than 18 schools would place too great a strain on its resources.

2. Were the schools representative?

Student population in schools participating in the RPSE ranged from 50 to 1,500. There were schools serving the needs of very small rural communities, and at least one school in a town with a population of 20,000. No high schools in larger cities were included.

3. Did schools enter at the request of the local administrator?

To familiarize people in northern California with the RPSE, the former Director visited nearly 100 high school administrators individually and left with each a form for problem identification. As well as calling for a list of aims and resources, this form requested the name of the person who was to represent the school in its relations with the RPSE. In all cases, this person was either the local administrator or a member of the staff acting for him.

4. Were all agencies represented on the Board?

The personnel of the Advisory Board remained stable throughout the three years of the Board's existence. Its personnel included 35 representatives of various organizations: 3 supervisors, 1 member of the California Teachers Association, 1 member of the California Congress of Parents and Teachers, 2 county secondary school coördinators, 1 district superintendent, 3 consultants from the State Department of Education, 1 consultant from the Association for Child Welfare and Attendance, 16 school principals, and 7 faculty members from the state colleges at Chico, Sacramento, and Arcata.

5. Was the Advisory Board able to finance its operations?

For each of two years, the Executive Committee of the Advisory Board administered a budget of approximately $14,000. This sum, provided through the generosity of the Rosenberg Foundation, permitted the employment of a full-time director and his secretary, as well as the payment of certain costs for travel, publication, and consultant service. Such independent financing is ideal for a project of this kind. The advantage which an RPSE director had over any representative from a county office, from the State Department of Education, or from a district office, was that his relationship to the school was not clouded by any administrative capacity whatsoever. Unfortunately, most foundations prefer to make use of venture capital; they do not look favorably on the idea of prolonged support for any one activity.

COMMUNICATION

1. Was RPSE responsible for increasing the degree of coöperation among the agencies concerned with secondary education in California?

Evidence from four sources all indicates a strong affirmative answer to this question: (*a*) Such coöperation was most frequently mentioned in the letters of appraisal (25/40, or 62 per cent). (*b*) There were a number of positive answers to items 9–11, 13, 14, 16, and 18–21 of the questionnaire to teachers, all of which emphasize the idea of coöperation with other educational agencies. (*c*) There were many positive replies to items 6, 7, and 9 of the questionnaire to college professors, which also emphasize the idea of coöperation with other educational agencies. Replies made by the college professors clearly indicate that their experience with the RPSE was satisfactory, and emphasize a readiness on the part of the professors to assist high school teachers with curriculum problems when asked to do so. Professors in academic departments share this attitude equally with those in departments of education. Majorities in both groups think that the initiative should come from the high school teachers. (*d*) There were numerous illustrations of coöperation given in the reports from participating schools.

Specifically, the Director of the RPSE was asked to become a member of the committee that planned two workshops for high school principals. At these workshops, held in the summer of 1953, the principals attacked problems concerned with the role of the principal in curriculum development.

Through the representative of the California Teachers Association on the Advisory Board, the members of the CTA were kept informed of the project; correspondence is available to substantiate this point. In

addition, the CTA representative considered his Advisory Board duties sufficiently serious to warrant a trip of several hundred miles to attend a special meeting.

The representative of the California Congress of Parents and Teachers was one of the most enthusiastic members of the Advisory Board. Her letter of appraisal was high in its praise of the project, and she has used her RPSE experience to help in curriculum studies made by the group she represents. During the two years of her membership, the RPSE did not make full use of this valuable association. The representative attended meetings and made excellent contributions, but no deliberate attempt was made to initiate activity in the parent groups through her.

There was vigorous coöperation on the part of various members of the State Department of Education with the RPSE. Individual consultants seemed to find the project a particularly helpful way of approaching schools and said so in their letters of appraisal.

Consultants from state colleges visited participating schools on a number of occasions. Each visit was requested by the School or arranged by the Director of the RPSE. In no instance did the college professor take the initiative, yet one or two professors complained at not being asked to a school.

2. Was RPSE consistent with county-wide planning and curriculum coördination?

The operational plan suggests fairly aggressive action on the part of county staffs. At no time, however, did the Director feel that he was being pushed by people from county offices. He can remember only four occasions on which members of the staffs of county offices initiated action in a participating school, yet his own log of activities shows more than fifty contacts with staff members from county offices. Evidently, aggressive action toward the secondary schools is not part of the established policy of county superintendents. The experience of the RPSE seems to justify the procedures outlined in its operational plan and to suggest that the secondary schools would carry on more curriculum development if more of it were initiated by representatives from county offices.

3. Were projects reported to the Advisory Board?

At one or another of the campus meetings described in the final section of section 4, the representative from each of the eighteen participating schools was provided with an opportunity of describing orally his local project. Most members of the Advisory Board attended these campus meetings regularly, and in this way they kept well informed of

developments in local schools. The nine written descriptions of completed projects were presented at meetings of the Advisory Board before copies were produced for wider distribution.

4. To what extent were projects in participating schools publicized?

Three hundred copies of each of the nine reports just referred to were mimeographed and distributed to members of the Advisory Board, faculty members of the state colleges at Chico and Sacramento, members of the State Department of Education, county superintendents, and district superintendents. In addition, copies were sent to each high school in northern California. Distribution of two of these reports was followed up by questionnaire, and the answers to these questionnaires indicate a favorable reception. The extent to which the distribution of these reports modified procedures is almost entirely unknown.

Two of the reports, from schools 4 and 15, were printed in an educational journal that enjoys a wide circulation (9, 21).

5. Did activities in project schools spread to other schools in northern California?

Among the reports from 47 principals of nonparticipating schools, there were 13 showing major curriculum revision in recent years. When principals of these 13 were asked directly whether the RPSE had been their inspiration, 2 said yes, but 11 said no.

6. Did activities spread from one department to another in project schools?

Answers to the questionnaire to teachers emphasize a negative conclusion. Even in those schools that were successful in developing a single aspect of the curriculum, there was very little spread to the procedures of other teachers in the school. In fact, the traces of sympathy developed in one or two instances are neutralized by the traces of hostility aroused in others. As one of the most perspicacious of those writing letters of appraisal put it, "The principals owned it, but in a great many cases, it was never bought by the teachers."

STEPS IN PROCEDURE

1. Were projects chosen locally?

The Director of the RPSE insisted that a school think through its chosen problem with a fair degree of precision before presenting to the Advisory Board its application to become a participating school. Other than this, the widest latitude in the choice of a problem was permitted. The wide range of choices has been reported in section 4.

2. Were plans for activities made locally?

All reports indicate that plans were made at the local school. Reference to any or all of these reports shows that almost invariably consultants visited the school. Only the five campus meetings were held away from the local high school.

3. Where were the procedures and materials developed?

Again, most of the procedures and materials were developed locally by a committee of teachers with help from consultants. A few teachers prepared written outlines for their work during summer courses at colleges and universities.

4. Was inservice education effected?

At least 30 new teachers who visited the RPSE schools learned of the significance and means of meeting the individual needs of pupils.

5. Were classroom procedures affected?

The classroom behavior of at least 35 experienced teachers improved with respect to the methods by which they provided for individual differences. At least 7 of the RPSE schools are using instructional materials more appropriate to levels of ability and types of interest than formerly.

6. Was there observation of modified programs?

Observation of procedures in participating schools did not take place with anything like the frequency anticipated by the Advisory Board. General invitations to principals, teachers, and college students were issued, but these did not result in a single observation. The Director arranged personally for five or six observations by small groups and by individuals. These seemed to be highly successful, but in only one case was the visit repeated without the personal intervention of the Director.

7. To what extent were the changes appraised and evaluated?

Reports from participating schools indicate a minimum of formal evaluation and appraisal. Data were not collected from participating schools in such a way that they could be compared with similar data from nonparticipating schools. Many data were collected locally in the early stages, but little was done with them. In one school the teacher collecting the data left. In another school precise attention was directed away from the kinds of growth measurable by data-gathering devices toward ways in which the administrator, the teachers, and the pupils could coöperate. In general, the kind of evaluation suggested by parts of the operational plan requires a degree of sophistication that would come to most of those taking part in the project only after a year or two of experience. In at least three schools the results of tests given before and after the experiment were recorded. In other schools, which tried to develop increased communicative skill, two of the principals laid

down an adequate base line. Yet in one of these schools the base line was completely ignored when attempts were made to repeat the measurements one year later, and in the other school, because of a change in administration, no attempt was made to repeat the measurements.

8. Did the problems vary?

The list of problems reported in section 4 shows a surprising variety.

9. Were activities in project schools compared with those in nonparticipating schools?

Until the start of the present investigation, there was no attempt to compare activities in participating schools with those in nonparticipating schools. Evidence of activity in project schools has been presented. Participating schools are said to have been 75 per cent successful at making plans to meet individual needs, and a similar degree of success has been worked out for the extent to which these plans were implemented.

From the scanty information available from nonparticipating schools, calculation of a numerical value for the degree of success is not possible. Such evidence as the investigator possesses has been given. On the basis of this evidence three conclusions may perhaps be justified: (*a*) Less than a third of the nonparticipating schools are engaged in any curriculum revision at all; (*b*) where such revision is being carried on, it is less extensive than in participating schools; and (*c*) nonparticipating schools receive less help from consultants. Admittedly, all these conclusions are based on weak evidence.

EDUCATIONAL OUTCOMES

1 (*a*). Did teachers plan to provide to an increased extent for needs as regards treatment?

In section 7, reports from participating schools were analyzed to show the extent to which teachers in these schools made plans for increased provision for individual needs as regards treatment. Now the problems identified by the schools called for extensive committee work on the part of the teachers. At least three-fourths of the required committee work was done.

1 (*b*). Did teachers plan to provide to an increased extent for needs as regards outcomes?

Data with which to evaluate the outcomes of these changes in educational procedure are almost entirely lacking. Probably developments in most of the project schools do not, up to the present, warrant the use of techniques needed to measure with any great degree of objectivity

such outcomes as ability to do critical thinking, and a feeling of security and significance as regards the peer group. Development and use of such techniques could well be emphasized in the future as schools carry on the action research started under the RPSE.

2. Was there implementation of the plans to provide for student needs?

Again, analysis of the reports from schools given in section 7 leads to the conclusion that teachers in these schools were 80 per cent successful in implementing their plans. In other words, more than three-fourths of the participating schools were ready, by the end of the 1952–53 school year, to show, at least in part of their operation, the best of modern practices. In view of the statement by the supervisors that no schools were suitable as demonstration schools when the RPSE began, a firm step in the direction of the purpose indicated by this criterion has been taken.

Further signs of progress toward the goal of meeting "needs as regards treatment" is given by answers to items 5–8, 15, and 17 of the questionnaire to teachers in participating schools. A number of teachers answer these questions in the affirmative. The steady decrease in the number of positive responses from 35 for question 5 to 27 for question 8 supports belief in the authenticity of the answers.

Eleven, or 28 per cent, of those writing letters of appraisal volunteered the opinion that care for individual differences had been improved.

3. Was evidence collected of increased learning in subject areas on the part of students?

Comparisons of pre- and post-tests in five schools indicate increased learning in subject areas over that achieved in former years in the particular school.

4. Was evidence collected to show greater holding power?

One school measured its increase in holding power. The drop-out rate was lowered from 40 per cent to 20 per cent.

5. Did students feel that better care was being taken of their individual needs?

One school collected positive evidence regarding this criterion from a small sample of students.

6. Did teachers make use of new instructional materials?

Reports from schools 3–5, 14, 15, and 18 shows that teachers in these six schools made considerable use of new instructional materials.

7. Did teachers, alone and in groups, make use of a variety of resource persons?

Teachers in participating schools made increasing use of resource persons, both in number and variety. By means of written lists, available resources in the various educational agencies of the state were made known to the school. In many instances the schools were brought into actual contact with the various resources, either through the personal intervention of the Director of the RPSE or at the campus meetings.

8. Was the RPSE responsible for the changes and developments that took place in participating schools?

One (2 per cent) of those writing letters of appraisal with respect to the RPSE stated, "Some of the Participating Schools, it is apparent, have contributed to the improvement of educational procedures. What they have done that could not have been done under the local, county, and state plan of education without affiliation with RPSE is beyond my comprehension or appraisal."

On the other hand, 18 (45 per cent) of those writing letters of appraisal echoed the idea of stimulation made by one of them, "I feel certain that a pride has been felt by the teachers who took part in knowing that they were part of a larger, all-embracing program that was receiving favorable recognition in educational circles."

Although 11 of the principals in the 13 nonparticipating schools that carried on fairly extended programs of curriculum revision stated that they did not obtain their inspiration from the RPSE, they all said they believed it would be helpful if their schools were taking part in a scheme of this kind.

Overcoming the Barriers

Attention will now be given to the extent to which the RPSE broke down the barriers to change.

The project made no headway against those barriers considered inherent in contemporary American society (see pp. 7–9).

Against the barriers arising because of the organization of education in this country, especially in northern California, it was slightly more successful. Against the inertia of bigness it applied the force of coöperative endeavor. By means of reports, visits, and meetings, the isolation of individual schools was partially reduced; certainly, liaison between educational institutions was improved. Little reduction in the multiplicity of courses was achieved.

Only one of the barriers grouped under "The Community" has been lowered by the project. Some prestige and publicity was given to improved methods of teaching.

The project made no headway against the barriers erected by institutions of higher learning.

There was little direct contact between the RPSE and the students.

A number of the barriers listed under "Teachers" were attacked. Evidence is available to indicate that a few were appreciably reduced.

1. In schools with vigorous experimentation under way, teacher turnover was reduced.
2. In at least three schools, courses were weaned from complete reliance on textbooks.
3. Visits to schools by the Director often stimulated action.
4. Teachers were here and there encouraged to experiment with new methods.
5. Samples of unfamiliar instructional materials were carried to the schools.
6. A few more teachers mastered the techniques of meeting individual differences in a single class.
7. In a few schools, research findings were summarized and thus made ready for immediate use.
8. Some local competence in curriculum work was developed.
9. A few regional teachers' meetings were held.

Except that the principals were given the support that comes from membership in a coöperative undertaking, little reduction of the various barriers listed under "Principals" was effected. These barriers must be reduced in other ways than those tried in the RPSE. There is some indication that the workshops for principals sponsored by the California Association of Secondary School Administrators will prove effective in this respect.

One task remains: an examination of the RPSE according to the theory of curriculum development already stated (see p. 10).

1. The list of problems chosen by the participating schools indicates the wide responsibility accepted.
2. The major purpose of the RPSE was to put into practice better ways to meet individual differences.
3. Evidence is available to show that democratic methods were used.

a) Educators of all kinds were drawn into the project. In a few instances, lay people in the community made a contribution.

b) Programs in the local schools were built around the concept of the principal as the key person. Where the principal possessed the necessary competence, the local project was successful.

c) Only those changes earnestly sought by individual teachers were put into effect. (See reports from schools 2–4 and 7–9.)

d) In no instance did the RPSE try to set up goals that were different from those legally established for the schools of California (6).

e) The grass-roots approach of the RPSE was its strongest point.

4. Consultants used by the project were chosen in part for their sound knowledge and understanding of the psychology of learning.

5. Part of the evaluation of individual projects was provided by tests used regularly in the schools of the nation.

6. One of the participating schools chose music education for particular attention.

7. One of the schools increased to a marked extent the degree of articulation between elementary and secondary school.

It is clear that the activities of the Regional Project in Secondary Education are quite compatible with the theory of curriculum development that has been presented. Nothing in the experience of the project warrants the introduction of changes into the theory.

To summarize this section on conclusions, a few of the most significant will be repeated:

1. When the RPSE is judged in the light of criteria for evaluation drawn from its operational plan, it must be given credit for at least partial success.

2. Data are needed to determine whether the needs of children are being met more successfully than before in participating schools by the methods that are being used. But this statement is tantamount to saying that more research into the effectiveness of proposed methods is needed all along the line in education.

3. Few teachers entered the RPSE other than those originally concerned with the local problem. This lack of teacher involvement must be accepted as a major failure of the project.

4. Considerable progress toward solution of the locally chosen problem was reported in nine of the participating schools.

5. Coöperation among the various education agencies in northern California received much-needed stimulation.

Coöperative projects such as the RPSE stimulate curriculum development. The excellent coöperative action begun by the Regional Project in Secondary Education must go on if the schools of northern California are to continue to improve. In action of this kind, consultants assist local faculties as they attack local problems. The consultants come from

county offices of education, from the State Department of Education, from other schools in the same and in neighboring systems, and from college and university departments in the liberal arts as well as departments of education. The results of this investigation suggest several modifications:

1. Principals must be given greater assistance as they learn ways of working with teachers on curriculum development. Summer workshops organized under the California Association of Secondary School Administrators and the State Department of Education may provide a useful approach to the solution of this problem.

2. Through the principals, and perhaps by the use of direct methods agreeable to both teachers and principals, the interest that most teachers evince in the development of the curriculum must be exploited. This power source for the improvement of secondary education must not be wasted through lack of rapport between teachers and the organizers of a project. The most promising move so far toward the solution of this problem seems to be the initiation of programs of action research.

3. What has been said concerning the need to enlist the active participation of the teachers is true, to a lesser extent, concerning lay members of the community. They have a role to play in curriculum development; they are vitally interested in the work of the schools. An organized project for curriculum development must find ways to encourage and channel appropriate activity on the part of adults in the community.

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